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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/960,305	09/24/2001	Su-jong Jeong	P56519	5355

7590

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EXAMINER

LEE, SUSAN SHUK YIN

ART UNIT

PAPER NUMBER

2852

DATE MAILED: 04/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/960,305

Applicant(s)

JEONG

Examiner

Susan S. Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 22 January 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,5,7,8,10,11,13,15,16,18,21,23 and 32-38 is/are rejected.
- 7) ☒ Claim(s) 2,4,6,9,12,14,17,19,20,22,24-31 and 39-41 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 September 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the graphical user interface (claim 39) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

Claims 39-41 are objected to because of the following informalities:

As to claim 39, line 4, "lagent" is misspelled.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 32-38 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claim 32, line 2, "said selected print mode" lacks antecedent basis.

As to claim 34, line 9, "forming a latent image on the photoconductor drum coated with toner via a light source" is vague and unclear. Does forming latent image via a light source require the drum to be coated with toner? According to the specification, page 8, lines 6-7, and Fig. 1, the toner is cleaned off by blade 17 before the latent image is formed by the laser scanning unit 11.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Claims 1, 5, 7, 8, 10, 11, 13, 15, 16, 21, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kunishi et al. (5,991,557) in view of Jeong et al. (6,246,847) and Hashimoto et al. (6,088,548).

Kunishi et al. discloses an image forming apparatus with a photosensitive body 10, a charging roller 11, a developing unit 13 with a developing roller, an image exposing means 15, a transfer means 14; and a charging bias voltage source 40. The image forming apparatus have two modes of printing, a character image formation mode which uses a low tone reproductivity and a photograph mode which uses a higher tone reproductivity. The charging bias voltage varies according to which mode is

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selected, that is the frequency of the voltage of the first mode is lower than that of the second mode. Note abstract; column 3, line 60 – column 5, line 22; and column 12, lines 1-42.

Kunishi et al. differs from the instant invention by not disclosing a power supply unit for supplying power to the developer roller, the scanning unit, the transfer device; and not showing the transfer means 14 as a roller.

Jeong et al. discloses a power supply unit 140 for supplying a power to the charging roller 130, developing roller 110, laser scanning unit 150, a transfer roller 180, the opc drum 190; and a controller 160. Note abstract.

Hashimoto et al. discloses using a transfer charger 3 being a corona charger. The transfer charger 3 may be replaced with a charging roller. Note column 5, lines 9-20.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Kunishi et al. with that of Jeong et al. so that one power supply unit can be used to supply power to the various components of an image forming apparatus so that the system can be more compact and simplified; and to replace the transfer means 14 shown in Kunishi et al. as a corona with a roller because Hashimoto et al. shows that a transfer roller is an equivalent structure known in the art. Therefore, because these two transferring devices were art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious to substitute a transfer corona for transfer roller.

Claims 3 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kunishi et al. (557) in view of Jeong et al. (847) and Hashimoto et al. (548) as applied to

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claims 1, 5, 7, 8, 10, 11, 13, 15, 16, 21, and 23 above, and further in view of Kajiwara et al. (6,339,476).

Kunishi et al., as modified by Jeong et al. and Hashimoto et al., differ from the instant invention by not disclosing the selection of 600 dpi and 1200 dpi.

Kajiwara et al. discloses it is old in the art to have an image forming apparatus with a normal mode having a main scan resolution of 600 dpi and a sub-scan resolution of 600 dpi and a high quality mode having a main scan of 1200 dpi, and a sub-scan resolution of 1200 dpi. Note column 11, lines 11-16.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Kunishi et al. in view of Jeong et al. and Hashimoto et al. with that of Kajiwara et al. so that an image forming apparatus can have the capability to produce copies with a lower resolution such as 600 dpi to conserve toner or to produce copies with a higher resolution such as 1200 dpi to produce high quality prints.

Claims 1, 5, 7, 8, 10, 11, 13, 15, 16, 21, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kunishi et al. (5,991,557) in view of Nishiuwatoko et al. (6,079,029) and Hashimoto et al. (6,088,548).

Kunishi et al., as discussed above, differs from the instant invention by not disclosing a power supply unit for supplying power to the developer roller, the scanning unit, the transfer device; and not showing the transfer means 14 as a roller.

Nishiuwatoko et al. discloses an image forming apparatus with a process cartridge. The image forming apparatus or apparatus main assembly 16 has a control

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section 38 sends control signals to a power source 33. The power source 33 comprises three power sources; a first low voltage power source 33a for powering the CPU or the laser, a second low voltage power source 33b for driving mainly the motors or the like, and the high voltage power source 33c for supplying the high voltages necessary for image formation process to the transfer roller 4, developing roller 10c, and the charging roller 8. Note column 20, lines 28-57.

Hashimoto et al. discloses using a transfer charger 3 being a corona charger. The transfer charger 3 may be replaced with a charging roller. Note column 5, lines 9-20.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Kunishi et al. with that of Nishiuwatoko et al. so that one power supply unit can be used to supply power to the various components of an image forming apparatus so that the system can be more compact and simplified; and to replace the transfer means 14 shown in Kunishi et al. as a corona with a roller because Hashimoto et al. shows that a transfer roller is an equivalent structure known in the art. Therefore, because these two transferring devices were art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious to substitute a transfer corona for transfer roller.

Claims 3 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kunishi et al. (557) in view of Nishiuwatoko et al. (029) and Hashimoto et al. (548) as applied to claims 1, 5, 7, 8, 10, 11, 13, 15, 16, 21, and 23 above, and further in view of Kajiwara et al. (6,339,476).

Kunishi et al., as modified by Nishiuwatoko et al. and Hashimoto et al., differ from the instant invention by not disclosing the selection of 600 dpi and 1200 dpi.

Kajiware et al. discloses it is old in the art to have an image forming apparatus with a normal mode having a main scan resolution of 600 dpi and a sub-scan resolution of 600 dpi and a high quality mode having a main scan of 1200 dpi, and a sub-scan resolution of 1200 dpi. Note column 11, lines 11-16.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Kunishi et al. in view of Nishiuwatoko et al. and Hashimoto et al. with that of Kajiware et al. so that an image forming apparatus can have the capability to produce copies with a lower resolution such as 600 dpi to conserve toner or to produce copies with a higher resolution such as 1200 dpi to produce high quality prints.

#### ***Allowable Subject Matter***

Claims 2, 4, 6, 9, 12, 14, 17, 19, 20, 22, and 24-31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 32 and 33 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.



Claims 34-38 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

Claims 39-41 are allowed over the prior art of record.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. White discloses a print processing system. Yun et al. discloses a power controlling method for a printer. Ohzeki et al. discloses a single power source applied to devices in an image forming apparatus.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1, 3, 5, 7, 8, 10, 11, 13, 15, 16, 18, 21, and 23 have been considered but are moot in view of the new ground(s) of rejection.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).


Applicant also argues that the reference to Jeong et al. (847) and the instant application have a common assignee at the time the time the present invention as made. Although this is true, but the reference to Jeong et al. (847) was not used because it was not used as a 102(e) reference, rather as a 102(a) reference. The reference was published as a patent on 6/12/01 which is earlier than the instant application's filing date of 9/24/01.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan S. Lee whose telephone number is 703-308-2138. The examiner can normally be reached on Mon. - Fri., 10:30-8:00, Second Monday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Art Grimley can be reached on 703-308-1373. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3432 for regular communications and 703-305-3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

  
Susan S. Lee  
Primary Examiner  
Art Unit 2852

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April 4, 2003